

JUN 18 2004

K032836

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**510(k) SUMMARY**

**1. Submitter's identification**

a. MORIA S.A.  
15, rue Georges Besse  
92160 ANTONY  
France  
Tel: (33-1) 46 74 46 36  
Fax: (33-1) 46 74 46 70

b. Contact person:

Mélanie RENAUD-SAMIRI  
QA & Regulatory Affairs Manager  
E mail: [mrenaud@morla-int.com](mailto:mrenaud@morla-int.com)

c. Date Summary Prepared:

September 10<sup>th</sup>, 2003

**2. Device name**

Trade Name: M3 microkeratome

**3. Classification name**

Keratome (per CFR 886.4370)

**4. Substantial equivalence**

Substantial equivalence is being claimed to the following legally marketed devices:

Device name: CARRIAZO BARRAQUER II Microkeratome  
Company name: MORIA S.A.  
Document control number: K002191

Device name: Plancon microlamellar Keratome  
Company name: PLANCON INSTRUMENTS  
Document control number: K970377

Device name: Automatic Corneal Shaper Surgical Instrument  
Company name: CHIRON VISION CORP.  
Document control number: K941550

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**5. Device description**

List of components

- Power unit
- Motor
- Suction rings
- Applanator lenses
- Footswitches
- Keratome head
- Keratome blade

**a) Power unit**

The power unit used for the M3 microkeratome is the same as the power unit used for the predicate devices CARRIAZO BARRAQUER Microkeratome (K003594) & Plancon microlamellar Keratome (K970377) already legally marketed in the USA by our company.

The power unit includes pumps for producing vacuum.

The power unit has been designed to operate the Keratome by means of electric motor.

Only one of the above power options can be selected at the time by means of a 2 position switches in the front panel.

The front panel has several displays and features:

- Vacuum pressure gauge,
- Gas pressure gauge,
- Battery level indicator,
- Battery charge indicator,
- Connectors:
  - DC motors outlets,
  - Gas turbine outlet
  - Gas outlet,
  - Vacuum outlet

The back panel has several displays and features:

- Connectors:
  - Gas inlet,
  - Foot pedals,
  - Battery charger.

All connectors are of different types for preventing connection mistakes.

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**b) Keratome motor**

The drive system has two built-in electrical motors (one motor for the blade oscillation and one motor for the advance of the microkeratome).

**c) Keratome head**

In the keratome head, a blade activated by an oscillation motor is inserted.

Different heads are available in order to adjust the thickness of the cut.

**d) Suction rings**

The suction rings are used to fixate and pressurize the eye and to provide a base for the microkeratome heads.

**e) Applanator lenses**

The applanator lenses are made of clear methylnmethacrylate with a stainless steel handle.

They are used with the rings to check disk diameter before the cut.

The upper part is convex for magnification.

The base part (contact part) is plane, with an engraved and calibrated reticule diameter.

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**f) Keratome blade**

The blade is made of two parts: the metal part in low carbon steel, and the plastic blade holder, which is not in contact with the patient's eye.

**6. Statement of intended use**

The M3 microkeratome is intended for use in making of a corneal flap in patients undergoing LASIK surgery or other treatments requiring initial lamellar resection of the cornea.

**7. Discussion of tests and results**

Keratomes have been used for lamellar keratoplasty for more than 30 years.

In-vitro studies on porcine eyes demonstrated:

- The flap thickness consistency,
- The safety of corneal resections,
- The good quality of corneal resections.

In-vivo studies on 100 human eyes showed that the M3 microkeratome is a safe Keratome able to create, equivalently to the predicate device, circular lamellar resection of a predetermined diameter and thickness and bed smoothness.



Food and Drug Administration  
9200 Corporate Boulevard  
Rockville MD 20850

JUN 18 2004

Moria S.A.  
c/o Ms. Melanie Renaud-Samiri  
Regulatory & Quality Assurance Manager  
15 Rue Georges Besse  
Antony,  
France 92160

Re: K032836  
Trade/Device Name: M3 Microkeratome  
Regulation Number: 21 CFR 886.4370  
Regulation Name: Microkeratome, Keratome  
Regulatory Class: Class I  
Product Code: HNO  
Dated: September 10, 2003  
Received: April 28, 2004

Dear Ms. Renaud-Samiri:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to such additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

This letter will allow you to begin marketing your device as described in your Section 510(k) premarket notification. The FDA finding of substantial equivalence of your device to a legally marketed predicate device results in a classification for your device and thus, permits your device to proceed to the market.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please contact the Office of Compliance at (301) 594-4613. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21CFR Part 807.97). You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 443-6597 or at its Internet address <http://www.fda.gov/cdrh/dsma/dsmamain.html>

Sincerely yours,

A handwritten signature in cursive script that reads "A. Ralph Rosenthal".

A. Ralph Rosenthal, M.D.

Director

Division of Ophthalmic and Ear,

Nose and Throat Devices

Office of Device Evaluation

Center for Devices and

Radiological Health

Enclosure

MORIA S.A.  
M3 microkeratome

September 10<sup>th</sup>, 2003  
Premarket Notification

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**510(k) Number (if known):**

**Device Name:**

M3 microkeratome

**Indications for use:**

The M3 microkeratome is intended for use in the making of a corneal flap in patients undergoing LASIK surgery or other treatments requiring initial lamellar resection of the cornea.

(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE IF  
NEEDED)

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Concurrence of CDRH, Office of Device Evaluation (ODE)

Prescription Use ☒  
(Per 21 CFR 801.109)

OR Over-The-Counter Use ☐  
(Optional Format 1-2-96)

Dennis L. McCarthy  
(Division Sign-Off)  
Division of Ophthalmic Ear,  
Nose and Throat Devices

510(k) Number K032836